introduce the adjective "first" into claim 1 and all its progeny. Applicants also delete the references to first storage servers in claims 5 and 15.

Without additional guidance from the Examiner, Applicants are unable to determine precisely why claim 8 is vague and unclear. Applicants amend claim 8 under the assumption that the Examiner would consider the explicit recitation of a Markush group to be clearer. Because of their similarity to claim 8, Applicants also amend claims 13 and 23 in the same manner.

Applicants amend claims 7 and 19 to replace "network manager" with "hardware manager," a term for which antecedent basis can be found in claims 5 and 15 respectively. Applicants amend claim 2 to refer to "viewable data objects," a term for which antecedent basis can be found in claim 1. There amendments address all remaining §112 rejections of the claims.

Applicants amend the title for consistency with the preamble of claim 1. This title is reasonably descriptive of the subject matter of the invention. If the Examiner disagrees, Applicants would welcome the Examiner's suggestion of a more descriptive title.

Applicants acknowledge the Examiner's remarks concerning the informalities in the drawings and propose to submit formal drawings following an indication of allowability.

Section 102(*b*) rejection of claims 1 and 9

In rejecting claims 1 and 9, the Examiner suggests that the nodes 12 disclosed by *Hoarty*[1] correspond to Applicants' claimed local servers. In response, Applicants draw attention to the limitation in both claims 1 and 9 that the local servers "store subsets of the viewable data objects".[2] This limitation is neither taught nor suggested by *Hoarty*.

Hoarty appears to teach a system in which each node 12 contains "a *complete* copy of *all* data of the entire system."[3] This feature of *Hoarty* allows the *Hoarty* system to function even if

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[1] *Hoarty* et al., U.S. Patent No. 5,220,420, issued June 15, 1993.
[2] *Applicants specification*, claim 1, lines 3-4 and claim 9, lines 3-4.
[3] *Hoarty*, col. 5, lines 62-67 ("The node computer...has stored, on an internal storage medium..., a *complete* copy of *all* data of the entire system. This node computer is *complete in all respects* and does not have to refer back to a central computer to complete user information requests.") [emphasis supplied]; see also *Hoarty*, col. 8, lines 26-31, ("[t]he node 12 receives and stores...all of the ...data broadcast by the headend computer 8.").

the regional processing center 4 is temporarily shut down.[4] The *Hoarty* system, with its array of nodes 12 having sufficient storage capacity to accommodate "a complete copy of all data of the entire system," is thus one example of a prior art system with large data storage requirements as discussed in the specification.[5]

In contrast, Applicants claim a system in which the local servers 45-49 store only a subset of the available data objects on the system. Because the storage servers 43, 44 transmit data to the local servers 45-49 on an as-needed basis, the local servers of the invention can operate with minimal storage requirements.[6]

As might be expected for a system that fails to teach local servers for storing subsets of data objects, *Hoarty* also fails to teach a storage server that transmits subsets of stored data objects to local servers, as recited in Applicants' claims 1 and 9.[7] The head-end computer 8 that the Examiner equates with Applicants' claimed storage server appears to do no more than temporarily buffer data received from a regional processing center.[8] In fact, the head-end computer 8 is not even a necessary component of the *Hoarty* system.[9]

It is apparent from the foregoing that *Hoarty* fails to teach or suggest every limitation recited in independent claims 1 and 9. Accordingly, Applicants request reconsideration and withdrawal of the §102(*b*) rejections of those claims.

Section 102(*b*) rejection of claim 20

In rejecting claim 20, the Examiner appears to rely on the teaching found in col. 8, lines 45-68 of *Hoarty*. The cited passage, however, only teaches that certain advertisements and the like are created at information suppliers and provided to the regional processing center 4 where

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[4] *Hoarty*, col. 2, lines 65-68 ("the system will continue to work...even if...the source of updates...is shut down for quite some time").
[5] *Applicants' specification*, page 1, lines 19-30.
[6] *Applicants' specification*, page 11, line26 to page 12, line 3.
[7] *Applicants' specification*, claim 1, lines 10-12 and claim 9, lines 10-12.
[8] *Hoarty*, col. 6, lines 19-21 ("The headend computer 8 acts as a store and forward device to receive this data and broadcast it to all of the nodes throughout the cable system 14.").
[9] *Hoarty* col. 6, lines 28-32 ("It should be noted that the headend computer acts merely as a buffer, it is not a required element of the system; i.e. the system could operate with the data being sent from a regional processing center 4 directly to the nodes 12.")

they are converted into "advertisement object modules". These object modules are then grouped for transmission to a headend computer 8. The remainder of the passage discusses numerical parameters associated with the communication of advertisement object modules through the system. For example, in the cited passage, we learn that the preferred data rate on the leased line 6 is 56 kbps and that the headend computer 8 rebroadcasts at 9600 baud on a 74 MHz carrier.

Other than the fact that the foregoing teaching relates to a cable TV network, it is unclear precisely what relevance these teachings have to a claim that recites a device that transmits different data objects to different local servers. If anything, the cited passage appears to teach away from a such a device by teaching a headend computer 8 that "rebroadcasts the data magazine... to *all* nodes 12 simultaneously."[10]

Hoarty teaches a cable television network having a pluralty of nodes 12. As noted in connection with claims 1 and 9, the Examiner appears to have equated these nodes with Applicants' claimed local servers. While the Examiner has not repeated this correspondence in connection with claim 20, Applicants assume, absent any suggestion to the contrary, that the Examiner continues to find such correspondence.

As Applicants understand *Hoarty*, each node contains "a substantially identical copy of the information transmitted by the regional processing center."[11] This is inconsistent with Applicants claimed limitation of a device that transmits different data objects to different local servers, as recited in claim 20. Accordingly, Applicants request reconsideration and withdrawal of the §102(*b*) rejection of claim 20.

Section 102(*b*) rejection of claim 26

The Examiner considers claim 26 to be a method claim corresponding to claims 1-25. Applicants therefore incorporate herein the arguments already made in connection with those claims.

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[10] *Hoarty*, col. 8, lines 59-62, [emphasis supplied].
[11] *Hoarty*, col. 3, lines 13-16.

Claims 26 clearly recites the sending of different viewable data objects to different local servers. This is clearly contrary to *Hoarty's* teaching of a system in which the same information is broadcast by a headend computer 8 to each node. Accordingly, Applicants request reconsideration and withdrawal of the §102(*b*) rejection of claim 26.

Section 102(*b*) rejection of claim 33

In rejecting claim 33, the Examiner draws attention to arguments made in connection with the rejection of claims 1, 9, and 20. Accordingly, Applicants reiterate the arguments made in connection with those claims. Applicants also amend claim 33 to recite the transmission of different viewable data objects to different viewers.

Summary

For reasons set forth above, Applicants submit that all of the claims are now in condition for allowance. No additional fees are believed to be due in connection with this response and amendment. However, in the event additional fees are due, please debit those fees, or credit any overpayments to our Deposit Account No. 06-1050.

Respectfully submitted,

5/30/00
Date

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